

I claim:

1. A capacitive image acquisition method, which comprises:

providing a multiplicity of electrodes arranged in a grid and acquiring an image by measuring electrical capacitances between respective electrodes and image pixels;

acquiring, with further electrodes arranged in the grid and capacitively coupled to one another, a local average value of a corresponding measurement of the electrical capacitances in respectively delimited areas of the image; and

utilizing the average value as a reference value for the measured electrical capacitance at at least one pixel within the relevant delimited area.

2. The method according to claim 1, which further comprises varying dimensions of the areas in which a respective average value is acquired within the image.

3. The method according to claim 1, which comprises using the average values as respective threshold values and, upon comparing a measured capacitance with the respective limit value, assigning each pixel one of two possible values.

4. The method according to claim 3, which comprises defining the two possible values as black and white values, and acquiring a black-and-white image of a fingerprint with the multiplicity of electrodes.

5. A device for capacitive acquisition of an image formed of pixels in a grid, which comprises:

a surface upon an image to be acquired is to be placed;

two layers of measuring electrodes formed as electrical conductors disposed at mutually different spacing distances from said surface, said electrical conductors being subdivided in accordance with the grid and mutually insulated;

said two layers including a first layer at a shorter distance from the surface, said first layer having further electrical conductors as reference electrodes disposed adjacent said measuring electrodes in accordance with the grid, and capacitively coupled within predetermined areas, such that a locally averaged capacitive measurement can be performed around each pixel with said reference electrodes; and

electronic circuits connected to said measuring electrodes and reference electrodes for applying electrical potentials to said measuring electrodes and said reference electrodes in an identical manner for an intended measurement and for

determining capacitances respectively present between a respective pixel and a respective electrode.

6. The device according to claim 5, wherein said reference electrodes are comb-shaped structures intermeshed with comb-shaped structures of adjacent said reference electrodes.